

### **REMARKS**

Reconsideration and allowance of the subject application are respectfully requested.

Claims 1-27 are all the claims pending in the application. In response to the Office Action, Applicant respectfully submits that the claims define patentable subject matter.

#### **I. Preliminary Matters**

The Examiner objects to the Abstract of the Disclosure because it allegedly is not related to the content of the original specification. By this Amendment, Applicant has submitted a corrected Abstract in the Response. Accordingly, the Examiner is requested to remove the objection to the Abstract.

#### **II. Analysis**

Claims 1-6, 8, 14-18, 20, 26, and 27 remain rejected under 35 U.S.C. § 102(b) as being anticipated by Rafii et al. (U.S. Patent No. 6,512,838, hereafter "Rafii"). Claims 7, 9-11, 19, and 21-23 remain rejected under 35 U.S.C. § 103(a) as being unpatentable over Rafii in view of Chung (U.S. Patent Application Publication No. 2005/0104869). Claims 12, 13, 24, and 25 remain rejected under 35 U.S.C. § 103(a) as being unpatentable over Rafii in view of Ng et al. (U.S. Patent Application Publication No. 2003/0193478, hereafter "Ng"). Applicant respectfully traverses the prior art rejections.

As in the previous Office Action dated March 7, 2007, the Examiner asserts that Rafii discloses all of the features of independent claims 1, 14, 26, and 27.

With respect to independent claim 1, in the Amendment filed on June 6, 2007, Applicant submitted that there is no teaching or suggestion in Rafii of "a key determination unit that finds a selected key value by matching the selected button and order of the user's fingers with the

predefined button and predefined order of the user's fingers mapped in the key information storage unit" as recited in independent claim 1, and that the Examiner's citing of FIG. 3, and specifically routine 285 as allegedly disclosing this feature of the claim, was erroneous.

In response, the Examiner asserts that:

[T]he cited prior art teaches (software routine Fig. 3 (285) in essence moves or relocates the virtual keyboard to under the user's fingers. Such procedure may be carried out by mapping the image obtained from sensor 20 to the fingers of the template, and then mapping the touched keys to the natural position for the user, which natural position was determined during the template construction phase (column 21, lines 35-41)) wherein the software 285 is a code or routine which works with the memory 280 to store different finger positions of the user's hand and wherein the left fingers on F, D, S and A keys are selected key value by matching the selected button and order of the user's fingers with the predefined button and predefined order of the user's fingers mapped in the key information storage unit.<sup>2</sup>

Applicant respectfully disagrees with the Examiner's position and continues to find the Examiner's position unclear.

Rafii merely discloses building a template by mapping positions of the user's fingers to specific keyboard keys at a rest position of the user (column 20, lines 1-8). For instance, if when the user is at rest, the user's left fingers touch the "A", "S", "D", and "F" keys, and the user's right fingers touch the "J", "K", "L", and ":" keys, the routing 285 would move or relocate the virtual keyboard, so that these keys are adjacent to the user's fingers when the user is at rest. When the user's fingers are placed in a typing position (and prior to any selection of a key), the

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<sup>2</sup> Page 3 of the office Action dated August 16, 2007.

user's fingers are mapped to the template and recalibrated to the keys of the virtual keyboard before a typing session starts (column 20, lines 27-33).

Accordingly, since it appears that the value of the keys are already known in Rafii, the claimed feature of finding a selected key value by matching the selected button and order of the user's fingers with the predefined button and predefined order of the user's fingers mapped in the key information storage unit, simply does not read on the teachings of Rafii.

In Rafii, a single key value is allocated to each button in Rafii. According to the instance in Rafii, the virtual keyboard is moved or relocated so that the user's left fingers can touch the "A", "S", "D" and "F" keys and the user's right fingers can touch the "J", "K", "L", and ";" keys. In Rafii, only the position of the virtual keyboard is adjusted. After the key board positioning, stroking key "K" through the right index finger or one of left fingers, not through the right middle finger, can be recognized as "K".

In the claimed invention, however, several key values are allocated to a single button. Therefore, a key value is determined according to which finger is used to stroke a button. Namely, when a button is stroked by the index finger, the key value is supposed to be "K". Then when the same button is stroked by the middle finger, the key value may be recognized to be "G", not "K".

With respect to claim 14, in the previous Amendment, Applicant submitted that there is no teaching or suggestion in Rafii of "identifying a selected key value corresponding to the sensed positions of the fingers and the order of the user's fingers that are used to select the virtual button, amongst a plurality of stored key values" as claimed.

In response, the Examiner asserts that:

[T]he prior art teaches templates preferably are used in the present invention to help identify user finger positions from data obtained from sensor 20. templates can assist classification algorithm (or classifier) 285 in distinguishing boundaries between fingers when discontinuities are not necessarily apparent.<sup>3</sup>

Applicant continues to find the Examiner's position unclear, and fails to see how the claimed feature of claim 14 reads on this cited portion of Rafii. Applicant respectfully submits that there is simply no disclosure in Rafii of identifying a selected key value which corresponds to the sensed positions of the fingers and the order of the fingers, as claimed.

Finally, Applicant notes that the Examiner did not address Applicant's arguments presented in the previous Amendment with respect to independent claims 26 and 27, that there is no teaching or suggestion in Rafii of "mapping keys onto virtual buttons of a virtual keyboard that are selected by a user's fingers upon which are individually mounted a plurality of sensors", or the feature "determining the number of sensors; allocating key values according to the number of sensors; and mapping the allocated key values onto a first virtual button" as recited in claim 26 and analogously recited in claim 27.

Accordingly, Applicant respectfully submits that independent claims 1, 14, 26, and 27 should be allowable because the cited references do not teach or suggest all of the features of the claims. Claims 2-13 and 15-25 should also be allowable at least by virtue of their dependency on independent claims 1 and 14.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the

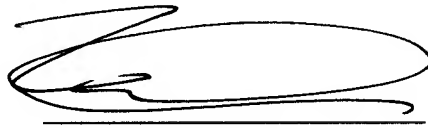
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<sup>3</sup> Page 3 of the Office Action dated August 16, 2007.

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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